

REMARKS

I. Claims Pending in This Application.

Applicant acknowledges with appreciation the courtesy extended by the Examiner to Applicant's counsel during the telephone interview of February 17, 2006. During the interview, the Examiner indicated that she has been unable to locate portions of the file history of this application, due at least in part to its having been filed prior to the U.S. Patent and Trademark Office's ("PTO's") implementation of its Image File Wrapper system. For this reason, Applicant respectfully provides the following summary of the relevant application file history to correct any misunderstanding as to the identity of the currently pending claims.

On February 21, 2001, contemporaneously with the filing of this application as a national stage application under 35 U.S.C. § 371, Applicant filed a Preliminary Amendment canceling Claims 1-40 without prejudice and adding Claims 41-80. (A copy of the Preliminary Amendment and Applicant's self-addressed return postcard bearing the PTO date stamp of February 22, 2001 is attached to this Amendment.)

On July 19, 2005, the Examiner mailed a First Office Action that included a requirement that Applicant restrict the application to one of two inventions, identified by the Examiner as (I) Claims 41-62, drawn to a method of automatically cutting out and unloading stacks of pieces, and (II) Claims 63-80, drawn to an installation for automatically cutting out and unloading stacks of pieces. In addition, Applicant was required to further restrict the application to one of several species regarding an unloading tool (identified by the Examiner as species A-F) and one of several species regarding an unloading station (identified by the Examiner as species G-N). (A copy of the First Office Action is also attached).

In a Response filed September 13, 2005, Applicant elected the invention of (II) Claims 63-80 and further elected species "A" (Figure 3), including Claims 68-70 relating to the unloading tool, and species "G" (Figure 2), including Claims 63-67 and 76-77 relating to the unloading station. (A copy of Applicant's Response and Applicant's self-addressed return postcard bearing the PTO date stamp of September 15, 2005 is also attached).

Consequently, as of the entry of Applicant's September 13, 2005 Response, Claims 63-70, 76, and 77 were pending in this application.

In the most recent Office Action of December 7, 2005, the Examiner stated that Claims 66, 67, and 70 do not appear to read on the elected invention and, thus, considered such claims withdrawn. Nevertheless, the Examiner proceeded to examine Claims 66, 67, and 70. Further, presumably due to the aforementioned unavailability of portions of the file history, the Examiner commented on, and/or rejected, claims that Applicant has previously cancelled or withdrawn from this application without prejudice.

To clarify matters, Applicant hereby withdraws those claims previously considered withdrawn by the Examiner, namely, Claims 66, 67, and 70, without prejudice. Additionally, Applicant respectfully states that it disagrees with, and considers moot, any and all comments and rejections made in the most recent Office Action with respect to previously cancelled or withdrawn Claims 1-62, 71-75, and 78-80 and with respect to previously considered withdrawn Claims 66, 67, and 70. In this Amendment, Applicant respectfully requests reconsideration of this application and reconsideration of the most recent Office Action as to Claims 63-65, 68-69, 76, and 77, which, upon entry of this Amendment, will be pending in this application.

II. Objections to the Specification and Drawings.

In the specification, the 4th paragraph, line 21, page 14 has been amended to correct any misunderstanding as to the sequence of steps in the process depicted in Figure 4. The 4th paragraph, line 27, page 18 has been amended to correct an obvious typographical error in referencing a part of the invention labeled "20b" in Figures 5A-5F. The 4th paragraph, line 25, page 20 has been amended to correct a minor error in referencing the style used for the reference characters in Figure 5F. And the 3rd paragraph, line 10, page 23 has been amended to correct an obvious error in referencing the removal bin labeled "70b" in Figure 10.

With regard to the drawings, in amended Figure 5B, reference numeral "2Cc" has been changed to "28Cc" to correctly correspond with the description and cure an obvious labeling error. In amended Figure 5D, reference character "f" has been added to correctly correspond with the description and cure an obvious labeling omission. Applicant submits

that the above amendments to the specification and drawings are supported by the application as originally filed and do not add any new material.

In the Office Action, the Examiner states that reference numerals “70b,” shown in Figures 1, 2, 10, 15, 16, and 18, and “S7”-“S17,” shown in Figure 5F, are not mentioned in the description. Applicant respectfully submits that reference numeral “70b” is mentioned in line 13, page 12; in line 27, page 24; and in amended lines 17-18, page 23 of the specification. Applicant also submits that reference numerals “S7”-“S17” are implicitly referenced, and understood to be described, in the specification. In particular, lines 10-13, page 20 of the specification provide: “. . . (the skeleton portion S1 has the rank 1, the piece A has the rank 2, the skeleton portion S2 has the rank 3, the piece B has the rank 4, and so on)” (emphasis supplied). Further, lines 25-27, page 20 provide: “For each piece or skeleton portion, Figure 5F diagrammatically shows the initial portion of the slide direction and, in parentheses, the take-off rank” (emphasis supplied). Applicant submits that the above-identified passages make reference to all skeleton portions depicted in Figure 5F, including skeleton portions “S7”-“S17,” albeit in a manner drafted for convenience and brevity.

III. Objections to the Claims.

With respect to the Claims, the Examiner objected to Claims 63-70, 76, and 77 based on the use of the term “installation.” Accordingly, Claims 63-65, 68-69, 76, and 77 have been amended to replace the term “installation” with the synonymous term “system.”

In addition, the Examiner objected to Claim 63 because of an informality. Consequently, Claim 63 has been amended to provide proper antecedent basis for the term “skeleton.”

IV. Rejections to the Claims.

A. Rejections under 35 U.S.C. §§ 112 and 101.

Claims 63-70, 76, and 77 stand rejected (1) as being indefinite under 35 U.S.C. § 112 because independent Claim 63 is alleged to claim both an apparatus and the method steps of using the apparatus and (2) as being directed to non-statutory subject matter under 35 U.S.C. § 101 because independent Claim 63 is alleged to claim neither a process nor a machine, but

rather to embrace or overlap two different statutory classes of invention. See M.P.E.P. § 2173.05(p) (citing *Ex parte Lyell*, 17 U.S.P.Q.2d 1548 (B.P.A.I. 1990)). Applicant respectfully traverses this rejection and submits that Claim 63, as amended, is properly drawn to a single class of invention, namely, a system, while permissibly using functional language to define the claimed invention.

In *Ex parte Lyell*, the Board held that reciting both an apparatus and a method of using that apparatus renders a claim indefinite under 35 U.S.C. § 112, second paragraph, and is precluded by the express language of 35 U.S.C. § 101 which sets forth the statutory classes of invention in the alternative only. The claim at issue in *Lyell* explicitly claimed both an apparatus and a method of using that apparatus, reciting “[a]n automatic transmission tool . . . and method for using same” The Board reasoned that:

[C]ombining two separate statutory classes of invention in a single claim . . . would raise serious questions for a manufacturer or seller of a tool like that claimed by appellant regarding infringement. Such a manufacturer or seller would have no indication at the time of making or selling a workstand of the structure set forth in appellant’s claim . . . whether they might later be sued for contributory infringement because a buyer/user of the workstand later performs the appellant’s claimed method of using the workstand.

Therefore, the Board found that the claim at issue was “not sufficiently precise to provide competitors with an accurate determination of the ‘metes and bounds’ of protection involved so that an evaluation of the possibility of infringement may be ascertained with a reasonable degree of certainty.”

More recently, in *IPXL Holdings, LLC v. Amazon.com, Inc.*, 430 F.3d 1377, 77 U.S.P.Q.2d 1140 (Fed. Cir. 2005), the Federal Circuit similarly held that reciting both a system and a method for using that system does not apprise a person of ordinary skill in the art of the scope of the claim and renders the claim invalid under 35 U.S.C. § 112, second paragraph. The claim at issue in *IPXL* read (emphasis supplied):

The system of claim 2 [including an input means] wherein the predicted transaction information comprises both a transaction type and transaction

parameters associated with that transaction type, and the user uses the input means to either change the predicted transaction information or accept the displayed transaction type and transaction parameters.

Like the Board in *Lyell*, the *IPXL* court reasoned that it was unclear from such a claim whether infringement occurs when one creates the recited system or when the user actually uses the system (or a component thereof) to practice the recited method. Thus, the court held that the claim was invalid as indefinite.

In contrast to the claims at issue in *Lyell* and *IPXL*, Applicant's Claim 63 recites only a system and does not recite a method of using that system. Instead, Applicant permissibly uses functional language to define that system. Applicant's Claim 63 recites, in relevant part, (emphasis supplied):

A system . . . comprising . . . a control unit . . . , the control unit being configured to . . . control the relative movements between [a] cutting tool and [a] lay-up carried by [a] conveyor in order to . . . and control the movements of the unloading tool in order to . . .

At no point does Claim 63 require a user to use the claimed system, or any component of the claimed system, in accordance with a method. Rather, Claim 63 defines the recited "control unit" of the claimed system in terms of functional language. Consequently, as explained in further detail below, Claim 63 does not suffer from the same uncertainties with regard to infringement as did the claims at issue in *Lyell* and *IPXL*.

It is well established that an apparatus/system claim may include functional limitations. See, e.g., *In re Swinehart*, 439 F.2d 210, 169 U.S.P.Q. 226 (C.C.P.A. 1971) ("We are convinced that there is no support, either in the actual holdings of prior cases or in the statute, for the proposition . . . that 'functional' language, in and of itself, renders a claim improper.") In *Intel Corp. v. U.S. International Trade Commission*, 946 F.2d 821, 20 U.S.P.Q.2d 1161 (Fed. Cir. 1991), the Federal Circuit interpreted functional language in an apparatus claim as requiring that an accused apparatus possess the capability of performing the recited function. Thus, a manufacturer or seller of a system like that claimed by Applicant in Claim 63 would have a clear indication at the time of making, selling, or

offering to sell its system whether it might later be sued for infringement. Such a determination would not depend on whether a user of the system later performs any method, but would rest on whether the system possesses the capability of performing the functions recited by Applicant's Claim 63.

Because Applicant's independent Claim 63 recites a system and uses functional language to define that system, rather than reciting a method of using that system, Applicant submits that Claim 63 is properly drawn to a single class of invention and apprises a person of ordinary skill in the art of the scope of the claim. Accordingly, Applicant respectfully requests withdrawal of the Examiner's rejection of Claims 63-70, 76, and 77 under 35 U.S.C. §§ 101 and 112.

B. Rejections under 35 U.S.C. § 103.

Claims 63, 68, 69, 76, and 77 stand rejected under 35 USC § 103(a) as being obvious over U.S. Pat. No. 5,092,829 to Gerber (the "829 patent") in view of U.S. Pat. No. 3,495,492 to Gerber *et al.* (the "492 patent"). Applicant respectfully traverses this rejection as the 829 patent does not teach or suggest a system configured to (1) cut up a skeleton of a lay-up into a plurality of portions or (2) take off stacks of cut-out pieces by moving them substantially parallel to the surface of an unloading table, and because there is no reasonable expectation that the 492 patent could successfully be modified to practice the claimed invention.

As the Examiner is aware, any analysis under 35 U.S.C. § 103 is governed by the following tenets of patent law:

- (1) the claimed invention must be considered as whole;
- (2) the references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination;
- (3) the references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and
- (4) reasonable expectation of success is the standard with which obviousness is determined.

See MPEP § 2141.

Under these tenets, three basic criteria must be met to establish a *prima facie* case of obviousness: (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings; (2) there must be a reasonable expectation of success; and (3) the prior art references must teach or suggest all the claims limitations. *See* MPEP § 2142.

Because the cited references either alone or in combination, and without impermissible hindsight, do not teach or suggest the claimed invention as a whole, nor provide any indication as to how one could successfully arrive at the claimed invention as a whole, applicant respectfully asserts the pending claims define non-obvious subject matter and are allowable over these references.

As is clear from the above-identified application, the present invention relates to a method and system for automatically cutting out stacks of pieces from a lay-up of sheets of sheet material, and to separating and unloading the stacks of pieces after they have been cut out from the lay-up. The 829 patent, which is cited in the "Background" section of the present application on page 2, describes one such method and system that comprises a "cutting means" for cutting stacks of pieces from a lay-up of sheet material, a "bundling means" for inserting fasteners into the lay-up to hold stacks of pieces cut from the lay-up in bundles, and a "take-off means" for seizing the fasteners to pick up the bundles and transfer them elsewhere. (Col. 2, lines 32-51; Col. 9, lines 19-30).

As described in the application, the use of fasteners in accordance with the 829 patent, which involves inserting a fiber through the stack of pieces (col. 5, lines 66-68; figure 5d), suffers from a major drawback, namely, a tendency to damage the material of the pieces. In view of this drawback facing the prior art, the present inventor has made an effort to overcome this and other problems by creating a method and system for cutting out and unloading stacks of pieces from a lay-up that does not require fastening the pieces in each stack together in a bundle.

Thus, the features of the present invention reside in that, in addition to cutting out stacks of pieces from the lay-up, the complementary "skeleton" of the lay-up is cut up so that

the stacks of cut-out pieces can be unloaded one after another merely by causing them to slide parallel to the unloading table. Accordingly, the present invention avoids the problems associated with having to bundle and pick up each stack of pieces with a fastener.

Applicants respectfully submit that the references, considered as a whole, do not render Claim 63 *prima facie* obvious. The system claimed by independent Claim 63, and the dependent claims thereof, includes a control unit that is configured to control the movements of the cutting tool and the unloading tool, respectively, to (1) "cut up a skeleton of the lay-up into a plurality of portions" and (2) "take off the stacks of cut-out pieces . . . by moving them substantially parallel to the surface of the unloading table." Applicants respectfully submit that the 829 patent does not teach either of these limitations of the claimed invention.

In accordance with the present invention, the skeleton of the lay-up is cut up along predetermined cutting-up lines. The cutting-up lines are determined so that the skeleton is fragmented in a manner whereby, at the unloading stage, the stacks of cut-out pieces and the stacks of cut-out portions of the skeleton can be taken off successively by being moved substantially parallel to the surface of the unloading table. As such, the unloaded stack does not interfere with the remainder of the lay-up.

By contrast, the 829 patent describes cutting only the peripheries of the pieces (col. 4, line 52); the skeleton remains intact. "The [single] portion of the layup not constituting pattern pieces F is usually considered waste S and discarded after the cutting operation." (Col. 3, lines 36-39) (emphasis supplied). Thus, to avoid interfering with the remainder of the layup, the system of the 829 patent must lift each stack of cut-out pieces off the table by a fastener (col. 5, lines 4-6), *i.e.*, it must move each stack in a direction substantially perpendicular to, rather than parallel to, the surface of the table.

Because all the claim limitations must be taught or suggested by the prior art to establish *prima facie* obviousness of a claimed invention (See MPEP § 2143.03) and because the 829 patent does not teach or suggest a system comprising a control unit configured to (1) control the movements of a cutting tool to cut up a skeleton of a lay-up into a plurality of portions or (2) control the movements of an unloading tool to take off stacks of cut-out pieces

by moving them substantially parallel to the surface of an unloading table, Applicants respectfully submit that the references do not render Claim 63 *prima facie* obvious.

Moreover, Applicants submit that there is no reasonable expectation that the 492 patent could successfully be modified to practice the claimed invention. The 492 patent describes a system for spreading a lay-up of material on a supporting surface and for holding the material in place during the cutting of the material by a cutting tool. (Col. 1, lines 19-23). The 492 patent does not provide any indication of how to unload the stacks of material after they have been cut. Consequently, the problems addressed by the 492 patent are significantly different from that of the claimed invention.

In other words, the combination of the 829 patent and the 492 patent do not disclose any subject matter that would have encouraged a person having ordinary skill in the art to cut up the skeleton of the lay-up so that the stacks of cut-out pieces can be unloaded by moving them substantially parallel to the unloading table, which is the main aspect of the present invention.

Accordingly, Applicant requests withdrawal of the Examiner's rejection of Claim 63 under 35 U.S.C. § 103. As Claims 64-70, 76, and 77 are dependent on Claim 63, Applicants respectfully traverse the rejection of Claims 64-70, 76, and 77 for the reasons stated above.

V. Conclusion.

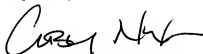
Applicant respectfully submits that this Amendment obviates the outstanding objections and rejections in this case and places the application in condition for allowance. Allowance of this application is earnestly solicited.

If any additional fees are due in connection with the filing of this Response or the accompanying papers, such as fees under 37 C.F.R. §§1.16 or 1.17, please charge the fees to SGR Deposit Account No. 02-4300, Order No. 041206.024. If an additional extension of time under 37 C.F.R. §1.136 is necessary that is not accounted for in the papers filed herewith, such an extension is requested. The additional extension fee also should be charged to SGR Deposit Account No. 02-4300, Order No. 041206.024. Any overpayment can be credited to Deposit Account No. 02-4300, Order No. 041206.024.

Application No. 09/763,445
Response to Office Action of December 7, 2005

PATENT

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Coby Nixon', written over the printed name.

Coby S. Nixon, Reg. No. 56,424

Dated: April 3, 2006
SMITH, GAMBRELL & RUSSELL, LLP
1230 Peachtree Street, N.E.
Suite 3100, Promenade II
Atlanta, GA 30309-3592
TEL: (404) 815-3649
FAX: (404) 685-6949